

What is claimed is:

- 1     1.    A blower comprising:  
2               a blower housing having a chamber;  
3               an impeller rotatably received in said chamber, said impeller having a plurality  
4               of blades; and  
5               at least one resonator ring associated with one of said blower housing and said  
6               impeller, said resonator ring having a plurality of resonator cavities for absorbing  
7               noise generated by said plurality of blades.
- 1     2.    The blower according to claim 1, wherein said impeller has a plurality blades with a  
2               blade gap therebetween, wherein said resonator ring includes said plurality of  
3               resonator cavities, and wherein a number of said blade gaps corresponds to a number  
4               of said plurality of resonator cavities.
- 1     3.    The blower according to claim 2, wherein each said resonator cavity is fluidly  
2               connected to one of said corresponding blade gaps.
- 1     4.    The blower according to claim 1, wherein said impeller comprises;  
2               a hub; and  
3               a disc radially extending from said hub;  
4               said resonator ring disposed between said disc and said plurality of blades.
- 1     5.    The blower according to claim 4, wherein said impeller has a plurality of blades with  
2               a blade gap therebetween; and wherein each said resonator cavity is fluidly connected  
3               to one of said corresponding blade gaps.
- 1     6.    The blower according to claim 5, wherein said resonator ring comprises:  
2               a facing surface, said facing surface having said resonator cavity which  
3               comprises a neck fluidly connected to a pocket, wherein said pocket is at least  
4               somewhat larger than said neck.

- 1     7.     The blower according to claim 6, wherein at least one of said resonator cavities is  
2           filled with damping material.
- 1     8.     The blower according to claim 6, further comprising:  
2                 a ring plate secured to said disc and at least partially enclosing said resonator  
3           cavity.
- 1     9.     The blower assembly according to claim 1, wherein said impeller has two resonator  
2           rings on each side thereof; each said resonator ring having a plurality of cavities; said  
3           impeller having a plurality of blades with a blade gap between each, wherein said  
4           plurality of cavities of each said resonator ring are fluidly connected to one of said  
5           corresponding blade gaps.
- 1     10.    A blower comprising:  
2                 a motor having a rotatable shaft;  
3                 a blower housing having a chamber, said blower housing having an inlet  
4           opening and an outlet opening;  
5                 an impeller secured to said shaft and received in said blower housing; and  
6                 a baffle assembly sub-dividing at least one of said inlet and said outlet  
7           openings.
- 1     11.    The blower according to claim 10, further comprising:  
2                 a sleeve forming each of said inlet and outlet openings, said sleeve having an  
3           interior wall;  
4                 said baffle assembly comprising a baffle plate extending between substantially  
5           opposite sides of said interior wall.
- 1     12.    The blower according to claim 11, wherein said baffle plate comprises:  
2                 a wide edge connected to one side of said interior wall;  
3                 a narrow edge connected to an opposite side of said interior wall;  
4                 a housing edge connecting said wide edge to said narrow edge, said housing  
5           edge facing away from said impeller; and

6                   an impeller edge connecting said wide edge to said narrow edge, said impeller  
7                   edge facing said impeller.

1       13.   The blower according to claim 12, wherein said impeller has a plurality of radially  
2           extending impeller blades, wherein said baffle plate comprises a blade side which  
3           substantially faces said impeller blades.

1       14.   The blower according to claim 13, wherein said baffle plate sub-divides at least one  
2           of said inlet and outlet openings into a primary flow aperture and a secondary flow  
3           aperture.

1       15.   The blower according to claim 14, wherein said chamber is substantially toroidal and  
2           has an endbell side adjacent said motor and a blower cover side away from said  
3           motor, and wherein said baffle plate primarily directs air flow generated by said  
4           impeller facing said motor side through said primary flow aperture and directs airflow  
5           generated by said impeller facing said cover side primarily through said secondary  
6           flow aperture.

1       16.   The blower according to claim 15, further comprising:  
2                   a wing extending from said interior wall into said primary flow aperture.

1       17.   The blower according to claim 16, wherein said wing is substantially perpendicular  
2           to said baffle plate.

1       18.   The blower according to claim 17, wherein said wing has wing edges which converge  
2           to a wing tip, wherein said wing tip points toward said narrow edge.

1       19.   The blower according to claim 17, further comprising:  
2                   a wing support bracket connected between seed win and said interior wall and  
3           extending toward said narrow edge.

- 1      20.    The blower according to claim 10, further comprising:  
2                    a sleeve forming each of said inlet and outlet openings, said sleeve having an  
3                    interior wall; and  
4                    a wing extending from said inferior wall and into said opening.
- 1      21.    The blower according to claim 20, wherein said impeller has plurality of radially  
2                    extending impeller blades, wherein said wing is positioned so as to primarily face said  
3                    impeller blades.
- 1      22.    The blower according to claim 10, wherein said impeller has a plurality of blades with  
2                    a gap therebetween each of said blades, and wherein said impeller has a plurality of  
3                    resonator cavities that correspond with said gaps.
- 1      23.    A blower comprising:  
2                    a motor having a rotatable shaft;  
3                    an blower housing having a chamber, said blower housing having an inlet  
4                    opening and an outlet opening;  
5                    an impeller secured to said rotatable shaft and received in said blower housing,  
6                    said impeller having a plurality of blades with a gap therebetween and at least one  
7                    resonator cavity fluidly connected with each of said gaps; and  
8                    a baffle assembly sub-dividing at least one of said inlet and outlet openings.